



## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2021-0364; Project Identifier MCAI-2020-00274-R]

RIN 2120-AA64

#### Airworthiness Directives; Leonardo S.p.a. Helicopters

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for Leonardo S.p.a. (Leonardo) Model A109S and AW109SP helicopters with a certain part-numbered vertical fin vibration absorber installation installed. This proposed AD would require repetitive inspections of the vertical fin vibration absorber installation and the surrounding structure and depending on the inspection results, removing certain parts from service. This proposed AD would also prohibit installing certain part-numbered vertical fin vibration absorber installations. This proposed AD was prompted by a report of cracks and damage detected on the vertical fin absorber installation and surrounding structure during scheduled inspections. The actions of this proposed AD are intended to address an unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <https://www.regulations.gov>. Follow the online instructions for sending your comments electronically.
- Fax: (202) 493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed rule, contact Leonardo S.p.a. Helicopters, Emanuele Bufano, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-225074; fax +39-0331-229046; or at <https://www.leonardocompany.com/en/home>. You may view the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0364; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the European Union Aviation Safety Agency (EASA) AD, any comments received, and other information. The street address for Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Kristin Bradley, Aerospace Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email [Kristin.Bradley@faa.gov](mailto:Kristin.Bradley@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include

“Docket No. FAA-2021-0364; Project Identifier MCAI-2020-00274-R” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

### **Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Kristin Bradley, Aerospace Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email [Kristin.Bradley@faa.gov](mailto:Kristin.Bradley@faa.gov). Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

## **Background**

EASA, which is the Technical Agent for the Member States of the European Union, issued EASA AD 2014-0150, dated June 18, 2014 (EASA AD 2014-0150), to correct an unsafe condition for certain AgustaWestland S.p.A. (now Leonardo S.p.a. Helicopters) (formerly Agusta S.p.A.) Model A109S and AW109SP helicopters, with absorber part number (P/N) 109-B810-79-101 installed. EASA advises that during a scheduled inspection on Model A109S and AW109SP helicopters, cracks and damage were detected on the vertical fin vibration absorber installation and the surrounding structure. EASA states investigation results determined the cracks and damage were likely related to the design of the vertical fin vibration absorber installation and incorrect installation. Accordingly, EASA AD 2014-0150 required repetitive inspections and removal of the affected part.

After EASA AD 2014-0150 was issued, EASA determined certain helicopters were not included in the applicability and may also be subject to the unsafe condition. Accordingly, EASA issued EASA AD 2019-0294, dated December 4, 2019 (EASA AD 2019-0294), which supersedes EASA AD 2014-0150. EASA AD 2019-0294 retains the requirements of EASA AD 2014-0150, and expands the applicability, prohibits vertical fin vibration absorber installation P/N 109-B810-79-101 from being installed on any helicopter, and considers removal of the affected part to constitute terminating action for the repetitive inspections. EASA states this condition if not detected and corrected could affect the structural integrity of the helicopter.

## **FAA's Determination**

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA is proposing this AD after evaluating all known relevant information and determining that

an unsafe condition is likely to exist or develop on other helicopters of the same type designs.

### **Related Service Information**

The FAA reviewed AgustaWestland S.p.A. Bollettino Technico (BT) No. 109S-58 for Model A109S helicopters, and AgustaWestland S.p.A BT No. 109SP-074 for Model AW109SP helicopters, each dated May 7, 2014. This service information specifies instructions for removing the vertical fin vibration absorber installation, inspecting the rib assembly and vertical fin vibration absorber installation and depending on the inspection results, removing certain parts from service.

### **Proposed AD Requirements in this NPRM**

This proposed AD would require within 30 hours time-in-service (TIS) after the effective date of this AD, and thereafter every 100 hours TIS, removing the vertical fin vibration absorber installation P/N 109-B810-79-101, and using a mirror and light source, inspecting the rib assembly and depending on the inspection results, removing certain parts from service. This proposed AD would also require inspecting the vertical fin vibration absorber installation P/N 109-B810-79-101 for hole elongation; for fretting between the plate and the masses, and in-between the masses; for fretting on the doubler; and the bolts for scratches and corrosion. Depending on the inspection results, this proposed AD would require removing the vertical fin vibration absorber installation P/N 109-B810-79-101 from service. This proposed AD would also require, within 12 months TIS after the effective date of this AD, unless already accomplished, removing the vertical fin vibration absorber installation P/N 109-B810-79-101 from service. This proposed AD would also prohibit installing an affected part on any helicopter, and would provide a terminating action for the 100 hour TIS repetitive inspections.

### **Differences between this Proposed AD and the EASA AD**

EASA AD 2019-0294 applies to certain serial-numbered Model A109S and AW109SP helicopters, whereas this proposed AD would apply to all serial-numbered Model A109S and AW109SP helicopters with a certain part-numbered vertical fin vibration absorber installation installed.

### **Costs of Compliance**

The FAA estimates that this proposed AD would affect 96 helicopters of U.S. Registry. The FAA estimates that operators may incur the following costs in order to comply with this proposed AD. Labor costs are estimated at \$85 per work-hour.

Removing and inspecting the vertical fin vibration absorber installation and surrounding structure would take about 8 work-hours for an estimated cost of \$680 per helicopter per inspection cycle and \$65,280 for the U.S. fleet per inspection cycle.

Replacing the rib assembly, shim, doubler, and bracket would take about 16 work-hours and parts would cost about \$10,000 for an estimated cost of \$11,360 per helicopter.

According to Leonardo some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The FAA does not control warranty coverage by Leonardo. Accordingly, all costs are included in this cost estimate.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by

prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866,
2. Would not affect intrastate aviation in Alaska, and
3. Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**Leonardo S.p.a.:** Docket No. FAA-2021-0364; Project Identifier MCAI-2020-00274-R.

**(a) Comments Due**

The FAA must receive comments on this airworthiness directive (AD) by  
[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL  
REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Leonardo S.p.a. Model A109S helicopters and AW109SP helicopters, certificated in any category, with vertical fin vibration absorber installation part number (P/N) 109-B810-79-101 installed.

**(d) Subject**

Joint Aircraft Service Component (JASC) Code: 2740, Stabilizer Control System.

**(e) Unsafe Condition**

This AD defines the unsafe condition as cracks or damage on the vertical fin vibration absorber installation and surrounding structure. This condition could affect the structural integrity of the helicopter and lead to subsequent loss of control of the helicopter.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Required Actions**

(1) Within 30 hours time-in-service (TIS) after the effective date of this AD, and thereafter at intervals not to exceed 100 hours TIS:

(i) Remove the vertical fin vibration absorber installation P/N 109-B810-79-101, and using a mirror and light source, visually inspect the rib assembly P/N 109-0372-53-201 for hole elongation, fretting, and cracks. If there is any hole elongation, fretting, or cracks, before further flight, remove rib assembly P/N 109-0372-53-201, shim P/N 109-0372-53-211, doubler P/N 109-0372-53-213, and bracket P/N 109-0373-02-113 from service and replace with airworthy parts.

(ii) Inspect the vertical fin vibration absorber installation P/N 109-B810-79-101 for hole elongation; for fretting between the plate and the masses and in-between the

masses; for fretting on doubler P/N 109-0372-53-213; and the bolts for scratches and corrosion. If there is any hole elongation; fretting between the plate and the masses or in-between the masses; fretting on doubler P/N 109-0372-53-213; or bolts with scratches or corrosion, before further flight, remove the vertical fin vibration absorber installation P/N 109-B810-79-101 from service.

(2) Within 12 months TIS after the effective date of this AD unless already accomplished per paragraph (g)(1)(ii) of this AD, remove the vertical fin vibration absorber installation P/N 109-B810-79-101 from service.

(3) As of the effective date of this AD, do not install vertical fin vibration absorber installation P/N 109-B810-79-101 on any helicopter.

(4) Removing the vertical fin vibration absorber installation P/N 109-B810-79-101 from service, as described in paragraphs (g)(1)(ii) or (2) of this AD provides a terminating action for the 100 hour TIS repetitive inspections required by paragraph (g)(1) of this AD.

**(h) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (i)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(i) Related Information**

(1) For more information about this AD, contact Kristin Bradley, Aerospace Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email Kristin.Bradley@faa.gov.

(2) For service information identified in this AD, contact Leonardo S.p.a. Helicopters, Emanuele Bufano, Head of Airworthiness, Viale G.Agusta 520, 21017 C. Costa di Samarate (Va) Italy; telephone +39-0331-225074; fax +39-0331-229046; or at <https://www.leonardocompany.com/en/home>. You may view this referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(3) The subject of this AD is addressed in European Union Aviation Safety Agency (EASA) AD 2019-0294, dated December 4, 2019. You may view the EASA AD on the Internet at <https://www.regulations.gov> in Docket No. FAA-2021-0364.

Issued on May 6, 2021.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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